CLAIMS

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- 1. Method of measuring the tilt of an optical disc (2) in an optical disc drive (1), said method comprising:
 - a step of directing to the optical disc during a normal phase (T_{OFF}), a first laser beam (32) having a first optical characteristic for writing/reading information into/from the optical disc,
 - a step of deriving a first intermediate value (RES(OFF)) from a first normalized error signal obtained after reflection of said first laser beam (32) on the optical disc,
 - a step of directing to the optical disc during a tilt-measuring phase (T_{ON}), said first laser beam (32) and a second laser beam (42) having a second optical characteristic,
 - a step of deriving a second intermediate value (RES(ON)) from a second normalized error signal obtained after reflection of said first and second laser beams (32, 42) on the optical disc,
 - a calculation step of deriving a tilt-indicative signal (S_{TILT}) from the difference between said second and first intermediate values.
- 2. Method according to claim 1, wherein the first laser beam (32) has a first wavelength and wherein the second laser beam (42) has a second wavelength.
- 3. Method according to claim 2, wherein the second laser beam (42) has a focus point coinciding with a focus point of the first laser beam (32).
 - 4. Method according to claim 1, wherein:
 - the first laser beam (32) has a first focus point,
 - the second laser beam (42) has a second focus point located at an axial distance from the first focus point.
 - 5. Method according to claim 4, wherein the first laser beam (32) and the second laser beam (42) have the same wavelength.

6. Method according to claim 1, wherein:

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- the first laser beam (32) has a first wavelength, and the second laser beam (42) has a second wavelength,
- the first laser beam (32) has a first focus point, and the second laser beam (42) has a second focus point located at an axial distance from the first focus point.
- 7. Method according to claim 1, wherein, in the tilt measuring phase (T_{ON}), the intensity of the second light beam (42) is intended to continuously rise from zero to a maximum value at approximately half-time (t0) of the tilt measuring phase (T_{ON}), and subsequently intended to continuously decrease from said maximum value to zero.
- 8. Method according to claim 1, wherein:
 - the first intermediate value (RES(OFF)) is obtained shortly before the start (t1) or shortly after the end (t2) of the tilt measuring phase (T_{ON}),
- the second intermediate value (RES(ON)) is obtained within the tilt measuring phase (T_{ON}).
 - 9. Method according to claim 1, wherein:
 - the first intermediate value (RES(OFF)) is derived from the average of a first measure obtained shortly before the start (t1) of the tilt measuring phase (T_{ON}), and a second measure obtained shortly after the end (t2) of the tilt measuring phase (T_{ON}),
 - the second intermediate value (RES(ON)) is obtained within the tilt measuring phase (T_{ON}).
- 25 10. Method according to claim 8 or 9, wherein the second intermediate value (RES(ON)) is obtained from a measure obtained at a central time (t0) within the tilt measuring phase (T_{ON}).
- Method according to anyone of claims 1 to 10, further comprising a step of freezing, during the tilt measuring phase (T_{ON}), the actuation of at least one lens actuator of the optical disc drive (1).

- Optical disc drive (1) for writing/reading information into/from an optical disc (2), said optical disc drive (1) comprising means for measuring the tilt of said optical disc (2), said means comprising:
- first means for generating and directing to the optical disc during a normal phase (T_{OFF}), a first laser beam (32) having a first optical characteristic for writing/reading information into/from the optical disc,
 - calculation means (90) for deriving a first intermediate value (RES(OFF)) from a first normalized error signal obtained after reflection of said first laser beam (32) on the optical disc,
- second means for generating and directing to the optical disc during a tilt-measuring phase (T_{ON}), said first laser beam (32) and a second laser beam (42) having a second optical characteristic,
 - calculation means (90) for deriving a second intermediate value (RES(ON)) from a second normalized error signal obtained after reflection of said first and second laser beams (32, 42) on the optical disc,
 - calculation means (90) for deriving a tilt-indicative signal (S_{TILT}) from the difference between said second and first intermediate values.
- 13. Optical disc drive according to claim 12, wherein the first laser beam (32) has a first wavelength and wherein the second laser beam (42) has a second wavelength.
 - 14. Optical disc drive according to claim 13, wherein the second laser beam (42) has a focus point coinciding with a focus point of the first laser beam (32).
- 25 15. Optical disc drive according to claim 12, wherein:

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- the first laser beam (32) has a first focus point,
- the second laser beam (42) has a second focus point located at an axial distance from the first focus point.
- 30 16. Optical disc drive according to claim 15, wherein the first laser beam (32) and the second laser beam (42) have the same wavelength.

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- 17. Optical disc drive according to claim 12, wherein:
 - the first laser beam (32) has a first wavelength and wherein the second laser beam (42) has a second wavelength,
 - the first laser beam (32) has a first focus point and wherein the second laser beam (42) has a second focus point located at an axial distance from the first focus point.
- 18. Optical disc drive according to claim 12, further comprising:
 - an objective lens (34),
 - lens actuators (51, 52, 53) for positioning the objective lens (34),
- means for freezing, during the tilt measuring phase (T_{ON}), the actuation of at least one lens actuator (51, 52, 53).
 - 19. Optical disc drive according to anyone of claims 12 to 18, intended to handle one disc type (for example CD or DVD or Blu-Ray) only, wherein the second light generating device (41) is an auxiliary light source.
 - 20. Optical disc drive according to anyone of claims 12 to 18, intended to handle at least two different disc types (for example : CD, DVD, Blu-Ray), wherein :
 - the first means for generating and directing are adapted to generate the first light beam (32) suitable for handling a first one of said disc types,
 - the second means for generating and directing are adapted to generate the second light beam (42) suitable for handling a second one of said disc types.